

STATE OF MICHIGAN DEPARTMENT OF ENVIRONMENT CADILLAC DISTRICT OFFICE



May 6, 2002

CERTIFIED MAIL
RETURN RECEPT REQUESTED

HAMO RELLEMED BY JQ 5-4-CZ S

Mr. Chris Hubbel Williamsburg Receiving and Storage 10190 Munro Road Williamsburg, Michigan 48690

Dear Mr. Hubbel:

SUBJECT: Williamsburg Receiving and Storage

State Groundwater Discharge Permit Number M 00836

National Pollutant Discharge Elimination System Permit Number M10044741

On March 11, 2002, the Department of Environmental Quality (DEQ) met with Williamsburg Receiving and Storage, LLC, (WRS) to discuss a proposed Consent Order (Proposed Order) regarding the WRS site in Williamsburg (Site). The Proposed Order was prepared to address violations of State Groundwater Discharge Permit Number M 00836 (Groundwater Permit), National Pollutant Discharge Elimination System Permit Number M10044741 (NPDES Permit), and Part 31, Water Resources Protection of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, MCL 324.101 et seq., (Part 31), and the rules promulgated under Part 31. These violations were outlined in the Notice of Violation dated February 11, 2002, from Mr. Jim Sygo and Mr. Dave Hamilton of the Waste Management and Surface Water Quality Divisions, and a December 4, 2001 letter from DEQ staff.

The following additional violations have been documented at the Site since the March 11, 2002 meeting:

1. Continued unpermitted discharges to the wetlands adjacent to Munro and Angell Roads in violation of Sections 3109(1) and 3112(1) of the Natural Resources and Environmental Protection Act (NREPA). On March 13, 2002, DEQ staff observed and sampled an unauthorized discharge from a pipe leading from the Site into the road ditch along Munro Road and emptying into the wetland. A letter dated March 18, 2002, from Mr. Rick Banwell, representing WRS, claimed that the discharge was the result of snow melt and runoff from the Site. However, the sample obtained by DEQ staff shows that the discharge was contaminated with suspended solids (52.9 milligrams per liter [mg/l]) and high concentrations of Biological Oxygen Demanding substances (218 mg/l), not indicative of snowmelt or runoff. WRS does not have a permit for this discharge, in violation of Section 3112(1) of the NREPA. Furthermore, the discharge of these substances has been determined to be harmful to aquatic life, in violation of Section 3109 of the NREPA, which states, in part "A person shall not directly or indirectly discharge into the waters of the state a substance that is or may become injurious to ... livestock, wild enimals, birds, fish, aquatic life, or plants..." On May 2, 2002, the DEQ also observed

unauthorized discharges from the Site to the road ditch along Munro Road, which flows into the restored wetland south of Angell Road.

- Overapplication of wastewater to the ground during the first quarter of 2002, in violation of the Groundwater Permit. On April 16, 2002, the DEQ received from WRS a copy of the Compliance Monitoring Report (CMR) for the first quarter of 2002, which reported a wastewater discharge of 1.0 inch per day and 2.0 inches per week to the irrigation fields at the Site. Condition A of the Groundwater Permit limits the application rate of wastewater at the Site to 0.4 inches per day and 0.4 inches per week during the fall and winter irrigation season. Failure by WRS to comply with the application rates is in violation of Condition A of the Groundwater Permit.
- 3. Ponding and nuisance odors at the irrigation area in violation of R 323.2204(2)(b). An April 4, 2002 site inspection by DEQ staff found wastewater ponding and erosion in the irrigation area, conditions also indicative of overapplication. On April 16, 2002, and April 17, 2002, DEQ staff received odor complaints about the Site, which described a putrid, anaerobic-rotting smell coming from the fields, and a sharp brine odor from the lagoon. The overapplication of wastewater may have caused anaerobic conditions in the irrigation areas resulting in these odors. These conditions are in violation of R 323.2204(2)(b).
- 4. Excessive concentrations of sodium, chloride, and phosphorus were discharged to the ground during the first quarter of 2002, in violation of the Groundwater Permit. The CMR from WRS shows that the WRS discharge to the ground during the first quarter of 2002 contained sodium at 291 mg/l, chloride at 650 mg/l and phosphorus at 3.16 mg/l. Condition A of the Groundwater Permit limits the concentration of sodium to 150 mg/l, chloride to 250 mg/l, and phosphorus to 1 mg/l. The discharge of these substances in excess of the permitted limits is in violation of Condition A of the Groundwater Permit. The high concentrations of these substances in the discharge are also inconsistent with the waste characterization provided to DEQ staff prior to issuance of the Groundwater Permit, and subject WRS to the discharger compliance responsibilities specified in R 323.2227.

Because of the violations noted above, the DEQ intends to modify the Proposed Order to do the following:

- Reference the unpermitted discharge from the Site documented on March 13, 2002, and assess additional penalties for this violation.
- Require that stormwater provisions be added to WRS' NPDES Permit, in accordance with 40 CFR 122.26(b)(14).
- Reference violations of the Groundwater Permit and Part 31 rules at the Site during 2002, and assess additional penalties for these violations.
- Require a revised monitoring program to adequately characterize and evaluate the discharge in accordance with R 323.2227(2)(a).
- Require development and implementation of a groundwater monitoring program in accordance with R 323.2227(2)(b).
- Require, if necessary to achieve compliance with Groundwater Permit limits, additional

steps under R 323.2227(2), including but not limited to revised operational procedures, or design and construction of upgrades to the treatment system.

During the March 11, 2002 meeting, you indicated you would submit to the DEQ 1) all available compliance monitoring data required under the Groundwater Permit, 2) information regarding the present design of brine storage lagoons at the Site, 3) a drawing that maps out all discharge piping at the Site, 4) a modification of the NPDES permit for a new discharge point, and 5) a request to modify the Groundwater Permit to include additional fields. Except for the first quarter 2002 monitoring report, none of this information has been submitted to the DEQ to date. Please submit this information to DEQ staff no later than May 24, 2002.

In addition to the information listed above, please clarify the relationship between WRS and Cherry Blossom, LLC. As you know, the Proposed Order currently lists WRS as the owner and operator of the Site. However, your new letterhead includes the title Cherry Blossom, LLC.

Please be advised that the WRS NPDES Permit only authorizes treated contact cooling water discharges through outfall 001. Except as authorized by the Groundwater Permit, any other discharges to the waters of the state, including the wetland restoration area on Angell Road, are not authorized and are violations of Part 31.

Staff of the DEQ intends to modify the Proposed Order as soon as possible and provide WRS with a redraft for your consideration. In the meantime, if you have any questions regarding these matters, please contact Ms. Janna Sebald at 517-335-4143, Mr. Rick Rusz at 517-335-4709, or you may contact us.

Sincerely,

Philip Roycraft, District Supervisor Waste Management Division

231-775-3960, Extension 6200

Michael Stifler, District Supervisor Surface Water Quality Division 231-775-3960, Extension 6260

cc: Whitewater Township

Mr. Joe Quandt, Menmuir, Zimmerman, Kuhn, Taylor and Quandt, PLC

Mr. Robert Reichel, Department of Attorney General

Mr. Rick Rusz, DEQ-Lansing

Ms. Janna Sebald, DEQ-Lansing

Ms. Sy Paulik, DEQ

Ms. Janice Heuer, DEQ

PERMIT CONDITIONS

PART I

A. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

1. Authorization

During the period beginning with the issuance of this permit and lasting until August 1, 1998 the permittee is authorized to discharge a maximum 94,000 gallons per day (8 million gallons per year) of dilute cherry processing brine wastewater to the ground at a site located in the SW 1/4 of the SW 1/4 of Section 9, T28N, R9W, Whitewater Township, Grand Traverse County, Michigan.

2. Wastewater Limitations and Monitoring Requirements

The fruit processing wastewater and irrigation fields shall be limited and monitored by the permittee as specified below. Analyses and inspections shall be conducted for the parameters listed below at least at the frequencies indicated. Reports of such monitoring shall be submitted to the Michigan Department of Natural Resources in accordance with Part I, Section E of this permit. Irrigation fields shall be designated as Fields 1, 2 and 3.

Sample/Monitoring and Location	<u>Limitations</u>	Measurement Frequency	Sample Type
Process Wastewater			
Irrigation Flow			
Daily (gal/day)	94,000 (max.)	Weekly	Total
Yearly (gal/year)	8,000,000 (max.)	Yearly	Total
pH (S.U.)	6.0 to 8.0	Twice Monthly*	Grab
Sodium	150 mg/l	Twice Monthly*	Grab
Chloride	250 mg/l	Twice Monthly*	Grab
Sulfate	250 mg/l	Twice Monthly*	Grab
Phosphorus	4 mg/l	Twice Monthly*	Grab
Total Inorganic Nitrogen**	5 mg/l	Twice Monthly*	Calculation
Ammonia-Nitrogen	·	Twice Monthly*	Grab
Nitrate-Nitrogen		Twice Monthly*	Grab
Nitrite-Nitrogen		Twice Monthly*	Grab

(continued on following page)

Sample/Monitoring and Location	<u>Limitations</u>	Measurement Frequency	Sample Type
Irrigation Fields			
	May 1 through Octob	er 31	
Irrigation Rate	1 in/day	Weekly	Measured or
	(max.)		Calculated
	2.5 in/week	Monthly	Calculated
	(monthly aver	age)	
	4.0 in/week	Weekly	Measured or
	(max.)		Calculated
Inspection	(Daily during	Visual
1		discharge	Observation
Soil pH***	6.1-7.5 S.U.	***	Grab
Soil Testing***	0.1 7.3 5.0.	Annual	Grab
Soft festing		Aimidal	GLAD
Drive Dite			
<u>Brine Pits</u> Freeboard	1 64 (mim)	Weekly	Visual
rreeboard	1 ft. (min.)	weekly	•
T		Daile dumine	Observation Visual
Inspection		Daily during	
		discharge	Observation

*Effluent samples shall be collected from the batch mixing tank.

**Total Inorganic Nitrogen is the total of ammonia plus nitrate plus nitrite, expressed as nitrogen. This limitation is based on best available technology. The limit may be lowered should economically available technology or management practices be developed.

***Soil tests shall be conducted and reported in accordance with the methods and procedures described in Part I, Section D.3 of this permit. The initial soil testing shall be conducted in 1994. Soil testing results shall be submitted by May 15 of the year in which the soil testing was conducted.

****Soil pH for each irrigation field shall be submitted by May 15, August 15 and November 15 each year.

Irrigation Management

The permittee shall irrigate fruit processing wastewater in accordance with the following restrictions, at a minimum:

- a. In no case shall fruit processing wastewater be irrigated in a manner that results in pooling or runof of the wastewater.
- b. Irrigation areas shall be inspected daily during discharge prior to, during, and after irrigation to make an evaluation of pooling, ponding, runoff, and odors. In the case of runoff off-site occurring, irrigation to the area in use shall be discontinued immediately and provisions made to repair erosion conditions and prevent reoccurrence of runoff (i.e., lessen use of the area, build berms, etc.).

- c. Sprinklers shall be examined daily during discharge to assure that they operate properly and are not clogged.
- d. In no case shall the operation of the disposal site create a nuisance odor condition that may cause for neighbors an "unreasonable interference with the comfortable enjoyment of life and property".
- e. Fruit processing wastewater shall not be applied within 150 feet of private drinking water wells, and 150 feet from property lines, unless the owner of the adjacent land gives written consent to application up to 50 feet from the property line. In no case shall fruit processing wastewater be applied within 50 feet of the property line. The isolation distances shall be measured from the periphery of the spray area, not from the sprinkler heads.
- f. The spray irrigation fields shall be under active cultivation and occupied by a crop which is to be harvested at least once per year.
- g. The soil in the irrigation fields shall be allowed to drain and aerate for a rest period equal to or greater than the amount of time that the irrigation takes place on a weekly basis.

4. Brine Pit Inspection

Any problems with dike integrity (for example, erosion or animal burrowing) shall be reported immediately to the Waste Management Division District Office. Vegetation shall be kept groomed to discourage animal burrowing. Adequate freeboard shall be maintained to prevent brine pit overtopping.

5. Other Monitoring Programs

Other wastewater monitoring programs may be substituted for the one required above if required or approved by the Waste Management Division, Michigan Department of Natural Resources.

B. GROUNDWATER LIMITATIONS AND MONITORING REQUIREMENTS

1. Groundwater Monitoring Program

The groundwater monitoring program shall consist of at least thirteen (13) monitor wells located adjacent to the brine pits and the proposed irrigation field.

2. Groundwater Limitations and Monitoring Requirements

The disposal of fruit processing wastewater shall not cause the groundwater quality to exceed the limitations listed below.

All groundwater monitoring wells shall be sampled and the groundwater analyzed for the parameters listed below at least at the frequencies indicated. Reports of such monitoring shall be submitted to the Department of Natural Resources on a monthly basis in accordance with Part I, Section E of this permit. The monitoring wells shall be designated MW-A, MW-B, MW-C, MW-E, MW-F, MW-G, MW-H, MW-I, MW-J, MW-K and MW-L.

Static Water Elevation Quarterly Reduced t	O USGS
pH Quarterly Grab	•
Dissolved Sodium 150 mg/l Quarterly Grab	
Chloride 250 mg/l Quarterly Grab	
Specific Conductance Annual Grab	
Total Inorganic 5 mg/l Quarterly Calculati Nitrogen*	lon
Ammonia Nitrogen Quarterly Grab	, .
Nitrate Nitrogen Quarterly Grab	
Nitrite Nitrogen Quarterly Grab	
Dissolved Calcium Annual Grab	
Dissolved Magnesium Annual Grab	
Dissolved Potassium Annual Grab	
Dissolved Iron Annual Grab	
Sulfate 250 mg/l Quarterly Grab	
Bicarbonate Annual Grab	
Total Phosphorus 1 mg/l Quarterly Grab	

*Total inorganic nitrogen is the total of ammonia plus nitrate plus nitrite, expressed as nitrogen. This limitation is based on best available technology. The limit may be lowered should economically available technology or management practices be developed.

Quarterly monitoring shall be done in the months of March, June, September and December. Annual monitoring shall occur in September.

3. Other Monitoring Programs

Other groundwater monitoring programs may be substituted for the one required above if required or approved by the Waste Management Division, Michigan Department of Natural Resources.

4. Static Water Elevation Measurement

- a. Water level measurements are to be made under static conditions prior to pumping for sample collection.
- b. Water levels shall be determined by methods giving precision to 1/8" or 0.01'. (Example: wetted tape method.)
- c. Measurements shall be made from the top of the casing with the elevation of all casings in the monitor well system related to a permanent reference point, using United States Geological Survey (USGS) datum. Static water level shall be reported as an elevation reduced to USGS datum.
- d. All wells shall be securely capped when not in use.

5. Sample Collection From Monitor Wells

- a. Well purging equipment and sampling techniques must be such that collection of the groundwater sample does not significantly alter the water chemistry.
- b. An adequate amount of water necessary to collect a representative sample (but not less than three times the amount of water in the well and gravel pack) shall be exhausted from the well before taking a sample for analysis. In the case of very low permeability soils the well may have to be exhausted and allowed to refill before a sample is collected. As soon as enough water is available in the well, a sample shall be collected.
- c. Bailing and pumping equipment shall be thoroughly cleaned and rinsed before use in each monitor well.
- d. A pressure tank shall not be used with a sampling system since the water in the pressure tank would be particularly difficult to exhaust.
- e. Water pumped from each monitor well should be disposed of according to a sampling and analysis plan approved by the Hydrogeologic Review Unit, Groundwater Section, Waste Management Division.
- f. Samples must be collected, stored, and transported to the laboratory in a manner consistent with Part I, Section E of this permit.

C. SCHEDULE OF COMPLIANCE

1. Construction Schedule

a. Approval of Plans

Prior to construction of any new or modified wastewater treatment system, the permittee shall obtain approval of plans and specifications from the Waste Management Division, Michigan Department of Natural Resources.

b. Commencement of Construction

The permittee shall notify the Waste Management Division, Michigan Department of Natural Resources in writing of the proposed schedule for construction of any new or modified wastewater treatment facilities at least two (2) weeks prior to commencing construction.

c. Construction Certification

Upon completion of the construction or modification of any facilities the permittee shall notify in writing to the Waste Management Division, Michigan Department of Natural Resources that the facilities are constructed in accordance with the approved plans and specifications.

d. Start-Up Notification

The permittee shall give the Waste Management Division, Michigan Department of Natural Resources written notification prior to the date of the start-up of any new or modified facilities. This notification requirement only applies to facility expansion, production increases, process modifications, or other changes in operations or conditions which will not result in a new or increased volume or change in composition of the discharge. Changes which will result in a new or increased volume or change in composition of the discharge must be authorized by a new permit or modification of this permit, as required in Part II, Section A.1.

2. Groundwater Monitor Well Installation

Monitor wells shall be installed in accordance with the following schedule. All submittals shall be forwarded to the Waste Management Division, Michigan Department of Natural Resources for approval.

- a. By September 30, 1993, the permittee shall submit to the Waste Management Division, Groundwater Section, Department of Natural Resources, a workplan for the installation of monitor wells MW-K and MW-L. The workplan shall include the proposed location of the well(s), well construction materials, installation methods (including annular sealing) and the depth and USGS screened interval for each well.
- b. Within 90 days of approval of the workplan described above, the permittee shall install the monitor wells according to the workplan approved by the Hydrogeologic Review Unit, Groundwater Section, Waste Management Division, Department of Natural Resources.
- c. Within 30 days of completion of the installation of the monitor wells, the permittee shall submit to the Groundwater Section, Waste Management Division, Department of Natural Resources, copies of all well logs for observation and monitor wells installed at the facility, a table of USGS ground, top of casing and screened interval elevations for each well at the facility, a map showing the surveyed locations of all wells on site and an updated groundwater contour map, incorporating static water levels from all wells on site. Well location information shall be verified annually.

3. Background Groundwater Quality Data

All groundwater monitor wells shall be sampled and tested monthly for all parameters given in Part I, Section B of this permit for the first six (6) months following installation of the well (or following the date of issuance of this permit, if the wells are existing and this data has not previously been obtained). After this background data has been obtained, the frequency of analysis shall be as stated in Part I, Section B of this permit.

4. Irrigation Management Plan

Within 90 days of issuance of this permit the permittee shall submit to and receive approval from the Waste Management Division, Michigan Department of Natural Resources for an Irrigation Management Plan describing the fields proposed for irrigation of fruit processing wastewater. The report shall include: a location map; a site map indicating buffer zones, soil series, slope, proposed crops and irrigation rates and a description of procedures which will assure that effluent limitations contained in Part I.A.2. of this permit will be met.

The plan shall also include procedures for routine maintenance and inspection of equipment used for irrigation. Any changes from the approved irrigation management plan must receive approval from the Waste Management Division, Michigan Department of Natural Resources prior to implementation. Any operation inconsistent with the approved Irrigation Management Plan shall be considered a violation of this permit.

D. SPECIAL CONDITIONS

1. Odor Control

- a. In no case shall fruit processing wastewater be transported, stored or irrigated in a manner that creates a nuisance odor condition or causes for neighbors an "unreasonable interference with the comfortable enjoyment of life and property".
- b. After a determination by and written notification from the Chief, Waste Management Division, in consultation with the Air Quality Division, that fugitive odor emissions from the permittee's operations conducted pursuant to this permit are causing an unreasonable interference with the common public right to live free from foul or noxious odors, the permittee shall immediately cease the operations until the cause of the odors can be corrected to the satisfaction of the Chief, Waste Management Division, Michigan Department of Natural Resources. The notification shall include the reasons for this determination. The permittee shall within two weeks of notification submit an odor control plan for approval by the Chief of the The permittee shall Waste Management Division. not restart the operations until the Chief of the Waste Management Division has approved the restart in writing. Information submitted by the permittee indicating the odors have been eliminated shall be evaluated by the Waste Management Division as expeditiously as possible. The Chief of the Waste Management Division may require an upgrade of the waste disposal system in order to accomplish odor control.

2. Closure Plan

a. Submittal of Plan

In the event that all or partial discharges from the facility are planned to be eliminated, the permittee shall submit for approval a closure plan to the Cadillac District Office of the Waste Management Division, Michigan Department of Natural Resources for the wastewater treatment and disposal areas. This plan shall be submitted at least 180 days prior to the planned closure. The closure plan cannot be implemented without approval of the Cadillac District Office of the Waste Management Division, Michigan Department of Natural Resources.

In the event of an unforeseen partial or total elimination of discharge from the facility, the permittee shall retain responsibility for closure requirements.

b. Criteria

The closure plan shall include:

- 1. Characterization of wastewater and residuals (sampling, parameters).
- Disposal methods (pump-and-haul, landfilling, land application, based on characterization).
- *3. Site remediation (extent of contamination, scope of remediation).
- *4. Site restoration (backfilling, final cover, scraping, future use).
- *5. Post-closure groundwater monitoring proposal (number and location of monitoring wells, parameters, monitoring frequency, duration of monitoring program).
- 6. Schedule for implementation of closure activities (time frame).

*if appropriate

c. Notification

The permittee shall notify the Cadillac District Office of the Waste Management Division, Michigan Department of Natural Resources in writing of the proposed implementation of closure activities at least four (4) weeks prior to commencing closure activities.

d. Closure

Closure shall be accomplished in accordance with the approved plan and its schedule.

e. Certification

Within 30 days of completion of the closure of the wastewater treatment and disposal areas, the permittee shall certify in writing to the Cadillac District Office of the Waste Management Division, Michigan Department of Natural Resources that the facilities were closed in accordance with the approved closure plan.

The certification shall include the submittal of sample results for materials removed, disposal documents (if applicable) or other records indicating the volume removed and disposal location, proposed site remediation (if required), and the proposed groundwater monitoring plan outlining well locations and water quality data.

3. Soil Testing

Initial and annual soil tests shall be performed on irrigation fields as follows:

- a. A soil fertility test shall be performed on samples from each approved field. Test parameters shall include but are not limited to phosphorus (Bray P_1).
- b. Soil sampling methods shall be in accordance with "Sampling Soils", Extension Bulletin E-498, July 1975, Michigan State University.
- c. The results of annual tests shall be submitted to the Waste Management Division on or before May 15 of each test year beginning in 1994. The report shall also describe the fertilizer application on each field for the preceding year.

4. Soil Phosphorus Limitations

If representative soil test levels for phosphorus (Bray P₁) reach 75 ppm (150 lbs/ac), the permittee shall notify the Waste Management Division in writing and the Waste Management Division may direct the permittee to conduct a phosphorus adsorption capacity evaluation of the site in accordance with the Langmuir Adsorption Equation (Langmuir Isotherm) procedure and the Bray (P) Method. Other methods may be substituted with the approval of the Waste Management Division. If upon reviewing such an evaluation the Waste Management Division determines that the soils will no longer adequately remove phosphorus from the wastewater effluent, the permittee shall, within six months of

notification, submit to the Waste Management Division and receive approval of plans and specifications for a system capable of removing the phosphorus to the limitation contained in this permit. The permittee shall have twelve months from the date the plans and specifications have been approved by the Department, to install the treatment system capable of removing phosphorus and have it operational.

5. Irrigation Record

The permittee shall maintain a log which details the length of time irrigation occurs on each irrigation field and the subsequent rest period as required in Part I.A.3.g. The log shall be available for inspection by Department of Natural Resources staff.

E. OTHER REPORTING AND MONITORING REQUIREMENTS

1. Reporting

The permittee shall effectively monitor the operation of all processes comprising the treatment and control facilities. Monitoring data required by this permit and other data required by the Waste Management Division, Michigan Department of Natural Resources shall be tabulated and summarized on a calendar month basis. Monthly reports, on forms or format supplied by the Department of Natural Resources, shall be mailed to the address below, postmarked no later than the tenth of the first month following the report period:

Michigan Department of Natural Resources Waste Management Division Groundwater Section P. O. Box 30241 Lansing, Michigan 48909

2. Other reports, notifications, and questions regarding this permit should be addressed to:

Waste Management Division
Groundwater Section
Michigan Department of Natural Resources
P. O. Box 30241
Lansing, Michigan 48909
Telephone: 517-373-8148